

## **REMARKS**

Allowance of claims 13-15 and 17 is noted and appreciated.

Objected to claim 12 remains in the application as is, since if placed in independent form, it would be similar in scope to that of allowed claim 17.

Independent claim 7 was rejected as being unpatentable over Kazmar (5,239,518) under 35 USC 103(a) since it shows an acoustic projection that includes a single shell segment (202) and three longitudinally spaced drivers (204) mounted within the shell segment. As the Office Action points out, claim 7 specifies "only two" longitudinally spaced drivers, whereas Kazmar shows three. The Office Action then specifies that it would be an obvious matter of design choice to a person of ordinary skill in the art to modify Kazmar from three to two because Applicant has not disclosed that only having two drivers provides an advantage and is used for a particular purpose or solves a stated problem. Applicant respectfully disagrees with this conclusion for the reasons set forth below.

The application clearly shows that the main embodiment of the invention is shown in Figs. 1 and 2 and includes only two drivers 10 mounted in a single shell segment 8, and as highlighted on attached page 6 of the corresponding PCT patent application, this reduces the shear stress and dynamic loading on the shell thereby increasing the depth and capability of dynamic range of projector 1. Under the Brief Description of the Drawings, Fig. 2 is described as being the preferred embodiment of the invention.

Furthermore, as pointed out in the Background of the Invention, and in particular on the top of attached page 2, there is a need for an improved projector construction which reduces assembly, labor costs and the number of parts for each projector which reduces or eliminates dynamic loading and shear stress for a given design thereby increasing the depth capability and dynamic range of the projector.

Most importantly, as highlighted on the attached Summary of the Invention, it is stated that to solve this problem, the acoustic projector of the present invention can be assembled as a "super segment" with multiple drivers as part of a

shell segment. These multiple drivers are clearly shown in the preferred embodiment of Fig. 2 as being two drivers.

Furthermore, it specifically states on the bottom page 2 that the most significant advantages is multiple drivers as clearly shown by only two drivers in Fig. 2 in one shell segment 8 to reduce the longitudinal vibration modes as well as significantly reduces acoustic segment interaction usually caused by hydrodynamic load variations along the length.

Furthermore, at the beginning of the Description of the Preferred Embodiment, on page 4 it is stated that the significant advantage to the new projector construction is the use of multiple drivers in one segment which stiffens the shell segments in the longitudinal direction and reduces longitudinal vibration modes as well as significantly reduces acoustic segment interaction. Again, the main feature of the invention is the construction of a "super segment" as clearly shown in Fig. 2, which includes a single shell segment and only two drivers. This "super segment" forms the building blocks for other shell segments when they are assembled together as shown in Figs. 3 and 4 of the present application. However, the main feature is the use of a single "super segment" of Fig. 2 having only two drivers in a single shell, which has the advantages described throughout the Specification which is clearly the subject matter of independent claim 7. Applicant's invention will not perform equally well with three drivers due to the reduction or elimination of dynamic loading on the shell segment.

Thus, it is respectfully submitted that it is not an obvious matter of design choice to reduce the number of three drivers in a single shell as shown by Kazmar to only two drivers in the single shell as now defined in claim 7 which defines the "super segment" of the present invention which can be used individually as shown in Fig. 2, or used as the building block for a combination with an even number of super segments to form other embodiments of the invention as shown in Figs. 3 and 4 and set forth in claim 16. Accordingly, it is respectfully submitted that claim 7 patentably defines over Kazmar and is entitled to allowance.

It is respectfully submitted that Osborn (6,643,222) shows that the shell segment can be comprised of various materials such as set forth in claim 9.

Applicant furthermore respectfully submits that claim 16 when combined with claim 7 patentably defines over Kazmar, even if Kazmar is combined with the teachings of Kompanek (4,651,044). Claim 16 defines an acoustic projector having two shell segments which are longitudinally joined wherein each of the shell segments contains two longitudinally spaced drivers. Fig. 5 of Kompanek shows an electroacoustical transducer having six shell segments which are longitudinally joined, each of which includes a single transducer 10a – 10f of the type shown in Figs. 1 and 2, wherein each transducer has a single shell 12 with a plurality of driver segments 16. Thus, Kompanek does not show an acoustical projector having two longitudinally joined shell segments wherein each of the shell segments contains only two longitudinally spaced drivers as defined in claim 7. Claim 16 claims the use of two of the “super segment” constructions of the present invention, combined in the manner shown in Figs. 3 and 4, which clearly would not result by a combination of the six transducers, each of which includes a single shell and a single driver joined together as shown in Fig. 5 of Kompanek. Accordingly, it is respectfully submitted that claim 16 clearly defines over Kompanek when combined with Kazmar.

It is respectfully requested that rejected claims 7, 9-11 and 16 be reviewed in view of the above remarks and are believed in condition for allowance, especially claims 7 and 16, and action to that effect is respectfully requested.

Respectfully submitted this 22<sup>nd</sup> day of May, 2008.

SAND & SEBOLT



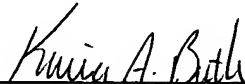
By: Michael Sand  
Reg. No. 26,503

Aegis Tower, Suite 1100  
4940 Munson St. NW  
Canton, Ohio 44718-2569  
Telephone: (330) 244-1174  
Facsimile: (330) 244-1173  
MS/kab  
Attorney Docket: 2022008US2AN (20030096)

**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313  
on this 22<sup>nd</sup> day of May, 2008



Karina A. Butler